Streets

How the City designs and manages its streets.

Introduction

The streets of Alexandria are a limited public resource that must support multiple functions and serve many types of users including people who drive, walk, take transit, bike, or ride scooters. While other chapters address walking, biking, transit, and how technology can make our streets safer and improve traffic flow (smart mobility), a major focus of this chapter is on how the City will manage streets to prioritize local travel, improve safety, reduce congestion and cut-through traffic, and ensure that all users are considered in decisions surrounding our streets. Our streets also serve valuable purposes beyond mobility including social interaction, recreation, festivals, commerce, dining, and others that contribute to vibrant life in Alexandria.

This chapter incorporates two major existing City policies that recognize that streets serve a variety of users and that all need to be accommodated safely: the Complete Streets policy and Design Guidelines—related to how we design our streets for all users—and the Vision Zero Policy and associated ***Vision Zero Action Plan***, which takes a multifaceted, data-driven approach to eliminating serious travel-related injuries and fatalities.

This chapter does not duplicate these efforts, but attempts to advance them, while seeking to address concerns related to excessive traffic on local streets.

Key Context

37

average number of people killed or seriously injured each year using Alexandria's streets[1]

42%

of traffic on arterial streets in central Alexandria is just passing through

During peak travel periods, major streets experience their greatest amount of delay resulting in driver frustration and a diversion of traffic to local streets.

560 miles

of travel lanes

2,300

intersections

320 miles

of sidewalks[2]

34%

of Alexandrians have a positive view of traffic flow in the city

In the 2020 Resident Survey, respondents gave lower marks to traffic flow, car travel, overall ease of travel, public parking, and traffic enforcement compared to 2018. The rating for traffic flow is the lowest ranking since the survey began in 2016.[3]

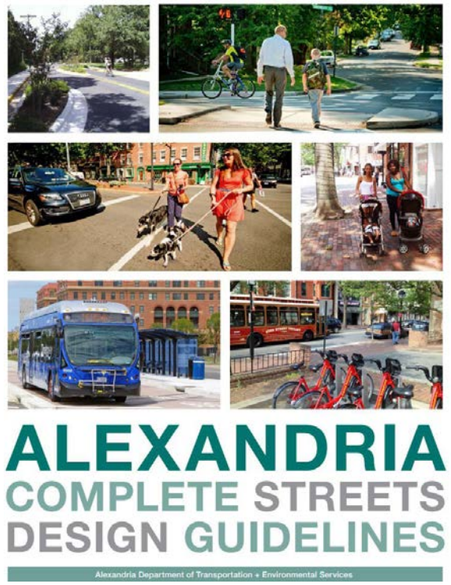
1. Vision Zero Action Plan, 2017.
2. Miles of sidewalks in the public right-of-way. Source: City data.
3. Alexandria Resident Survey, 2020.

Existing Programs, Policies, and Initiatives

Several of the related City plans and programs introduced in the Overview chapter contain targets and policies that relate to streets. The goals and targets in the City Strategic Plan call for continued emphasis on multimodal street design to improve ease and safety of getting around by all modes.

The Complete Streets Policy and the Vision Zero Policy and Action Plan responded to needs identified in the 2008 Transportation Master Plan and are now integrated into the Alexandria Mobility Plan (AMP).

Complete Streets Policy and Design Guidelines



The 2011 Complete Streets Policy directed planners, engineers, and developers to evaluate streets for safety and consider design elements and operational practices to enable safe access for all users, regardless of age, ability, or mode of transportation.

In 2016, the Alexandria Complete Streets Design Guidelines were published. The guidelines are a resource for City departments, design professionals, and developers, and communicate expectations regarding the design of the city's public and private streets.

Vision Zero Policy and Action Plan

Alexandria established a Vision Zero policy in 2017 with the goal of zero traffic deaths and serious injuries by 2028. By establishing the policy, the City recognizes that traffic deaths and serious injuries are preventable through proper engineering, enforcement, evaluation, and education.

The 2018 Vision Zero Action Plan is updated every year and identifies high-crash intersections that are priorities for safety improvements. The Action Plan lists the steps the City will take to improve data collection and evaluation; enhance City processes and collaboration; build safe streets for everyone; and promote a culture of safety.

Street Maintenance

Repaving Program

City streets are resurfaced based on their physical condition. When streets are planned for resurfacing, City staff work with the community to identify priority locations to improve safety, accessibility, and mobility by making changes such as upgrading curb ramps, adding missing crosswalks, upgrading high-priority crossings, and repairing sidewalks.

Street Cleaning and Snow Removal Program

The City's street cleaning program is responsible for street sweeping, leaf collection, and snow removal. This program maintains clean and accessible streets for all street users based on seasonal changes.

Policies

The Streets chapter policies will guide the City's decision-making around programs and improvements that will reduce and mitigate the effects of cut-through traffic, improve safety, and leverage technology on city streets.

Policy A: Protect neighborhoods from cut-through traffic

Reduce cut-through traffic burdening City neighborhoods.

The City will pursue a multifaceted approach to reduce neighborhood cut-through traffic that burdens Alexandrians who live on, work on, or use local city streets. Through this pursuit, the City will work to balance the needs of local traffic and regional connectivity.

Policy B: Achieve Vision Zero

Use data to eliminate traffic-related deaths and serious injuries by 2028.

An average of 37 people in Alexandria are killed or seriously injured each year using the City's streets.[4] These injuries and deaths are preventable. The City will prioritize the use of data—particularly crash, crash risk, and traffic safety data—in decision-making to eliminate serious injuries and fatalities. A proactive, data-driven approach will provide transparency and equity when developing priorities, processes, and making decisions.

Policy C: Leverage smart mobility

Recognizing that driving is important in the City, use smart mobility to manage congestion and neighborhood safety.

Through the application of Alexandria's Smart Mobility Framework Plan, the City will apply technology to streets and leverage data to better manage traffic, enhance safety, and increase its understanding of how the street network functions to improve quality of life in Alexandria.

4. Vision Zero Action Plan, 2017.

Strategies

Strategy 1. Implement the Vision Zero Action Plan to eliminate traffic fatalities and serious injuries by 2028

Actions

- Develop annual work plan priorities for promoting a culture of safety, building safer streets, improving data collection, and enhancing City processes and collaboration
- Prioritize high crash intersections and corridors for improvements, especially those in Equity Emphasis Areas
- Evaluate crash data for each project to enhance data-driven decision-making
- Apply national best practices as appropriate

Addressing the Need

Between 2016 and 2020, 21 people were killed and 144 people were seriously injured while traveling on Alexandria's streets.

In addition to the life-altering impacts of these crashes, the perceived danger of being involved in a crash keeps many people from walking and biking, which limits the City's ability to achieve a wide range of goals including reducing traffic congestion and greenhouse gas emissions.

61% of respondents would ride bikes more and 57% would walk more if they felt safer from traffic.[6]

More broadly, crashes contribute to travel delays and negatively affect the reliability of the transportation system.

Advancing City Plans and Goals

Age Friendly Plan for a Livable Community

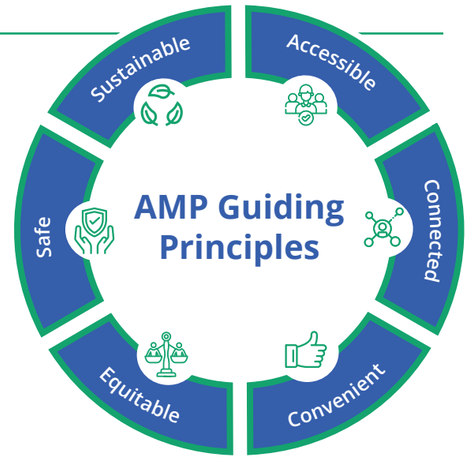
- Safe Walking, Biking, and Driving

Environmental Action Plan 2040

Vision Zero Action Plan

- Build Safe Streets for Everyone

Complete Streets Policy and Design Guidelines



6. Resident Transportation Needs Survey, 2017.

Strategy 2. Develop a comprehensive program to reduce speeding and cut-through traffic on local streets

Actions

- Outline procedures for addressing and monitoring cut-through traffic, traffic congestion, and speeding
- Develop criteria and list of data needs tailored to each traffic issue
- Identify specific design solutions appropriate for the street type and location to encourage regional traffic to stay on major thoroughfares

Addressing the Need

Congestion and cut-through traffic are significant issues in Alexandria. During outreach conducted in the summer and fall of 2019, 71 percent of respondents cited congestion as the biggest challenge for the future of mobility in Alexandria.

Forty-two percent of traffic in central Alexandria consists of trips that start and end outside of Alexandria.[4] Less regional traffic on local streets may improve safety and the quality of life for residents and can help local traffic move more efficiently.

Advancing City Plans and Goals

City Strategic Plan

- Ease of Getting to Places

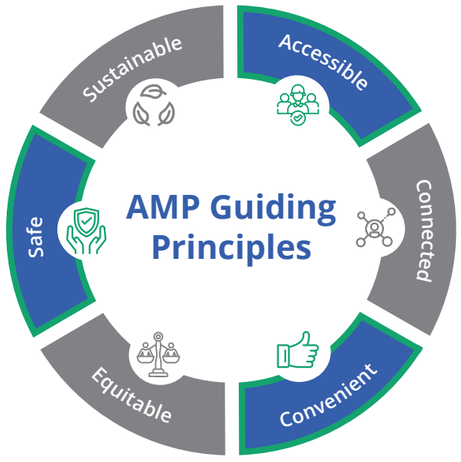
Complete Streets Policy and Design Guidelines

Smart Mobility Framework Plan

- Traffic Management

Vision Zero Action Plan

- Build Safe Streets for Everyone



4. Central Alexandria Traffic Study, 2017.

Strategy 3. Ensure new development minimizes negative impacts to the street network

Actions

- Update guidance for developers to better reflect City goals through traffic impact studies and best practices from around the country
- Require improved data collection and reporting after implementation
- Ensure proper consideration of all users through improved methods for measuring service levels for all modes and safety impacts on our transportation network
- Encourage study methodologies and mitigation measures such as transportation demand management programs and street design changes that place higher priority on local trips rather than regional trips to help reduce cut-through traffic

Addressing the Need

New developments have the potential to improve the areas around them, bringing more transit and safer intersections. However, they also have the potential to add more traffic and congestion.

Current traffic study practices for new developments focus on vehicle delay (expressed by "Level of Service") but fail to fully consider impacts on other street users.

Advancing City Plans and Goals

Age Friendly Plan for a Livable Community

- Safe Walking, Biking, and Driving

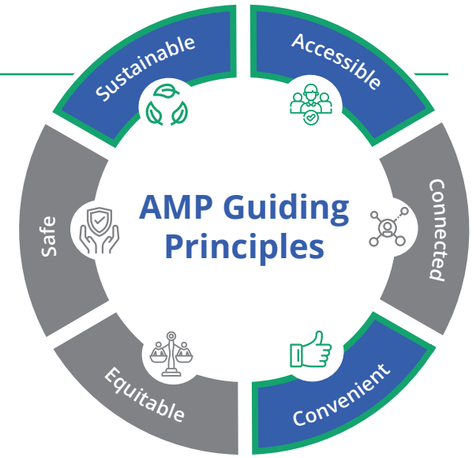
Complete Streets Policy and Design Guidelines

Environmental Action Plan 2040

- Reduce VMT, Green Building

Vision Zero Action Plan

- Enhance City Processes and Collaboration
- Build Safe Streets for Everyone



Strategy 4. Work with regional, state, and private sector partners to develop tools to keep traffic on highways and reduce regional cut-through traffic

Actions

- Coordinate with other jurisdictions and regional bodies to evaluate pricing strategies and other policies that promote highway travel versus travel on local streets
- Explore signal timing as a tool to keep regional traffic on highways
- Utilize variable messaging systems to use real-time travel comparisons to promote high-occupancy toll (HOT) lanes

Addressing the Need

Congestion and cut-through traffic are significant issues in Alexandria and many jurisdictions in the region. During outreach conducted in the summer and fall of 2019, 71 percent of respondents cited congestion as the biggest challenge for the future of mobility in Alexandria.

Forty-two percent of traffic in central Alexandria consists of trips that start and end outside of Alexandria.[5] Coordination of efforts and resources with regional, state, and private sector partners is needed to address regional cut-through traffic.

Alexandria's transportation network is linked to a complex regional network with multiple jurisdictions, transit operators, and statewide entities, making close coordination critical.

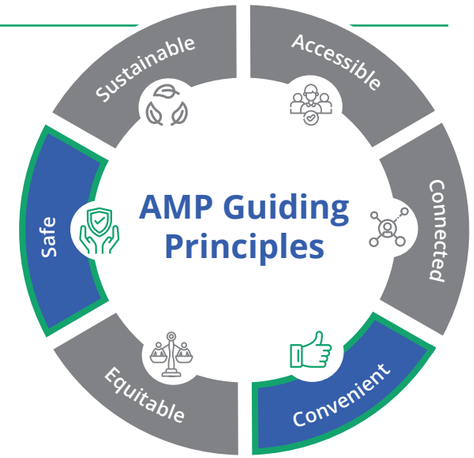
Advancing City Plans and Goals

Smart Mobility Framework Plan

- Optimize Traffic Flow, Improve Travel Times, Reduce Congestion

City Strategic Plan

- Distinctive and Vibrant Neighborhoods, Multimodal Transportation



5. Central Alexandria Traffic Study, 2017.

Strategy 5. Consider the use of speed cameras and other automated tools to improve safety

Actions

- Consider speed cameras in school zones, enabled in 2020
- If data demonstrates a safety benefit with the use of automated enforcement tools, explore legislative measures to expand the City's ability to place speed cameras in areas where they can most improve safety
- Partner with the Alexandria Police Department to enforce traffic laws to protect vulnerable street users and promote equity

Automated Enforcement Using Cameras. Legislation passed in the summer of 2020 allows state and local police in Virginia to use speed cameras near highway construction zones and school zones. Alexandria is currently studying where to implement speed cameras.

Addressing the Need

Decades of unequal transportation investments and exclusionist planning policies mean that vulnerable populations are more likely to live on or near poorly designed roadways where crashes are more likely to occur, increasing their likelihood of being involved in a crash.

Human bias in traffic enforcement has resulted in the deaths of Black, Indigenous, and people of color during routine traffic stops. There is a need to balance these safety disparities with a better understanding of human bias in enforcement. Automated enforcement is one strategy to help reduce this human bias.

In 2020, the League of American Bicyclists and Safe Routes Partnership, two prominent organizations in the field of traffic safety, removed "enforcement" from their program frameworks. The League found that **"enforcement as a stand-alone traffic safety tactic is not particularly effective in achieving long-term safety outcomes,"** and supports the use of **alternatives to police-led traffic enforcement**. Automated enforcement is one alternative, along with street design improvements and educational diversion programs.

Advancing City Plans and Goals

City Strategic Plan

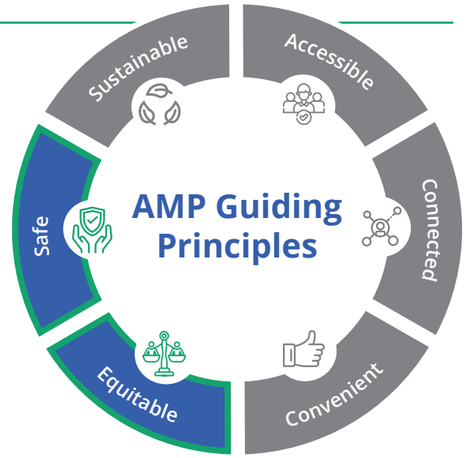
- Inclusive City, Safe and Resilient Community

Vision Zero Action Plan

- Improve Data Collection and Evaluation, Promote a Culture of Safety

ALL Alexandria

- Target equitable enforcement efforts

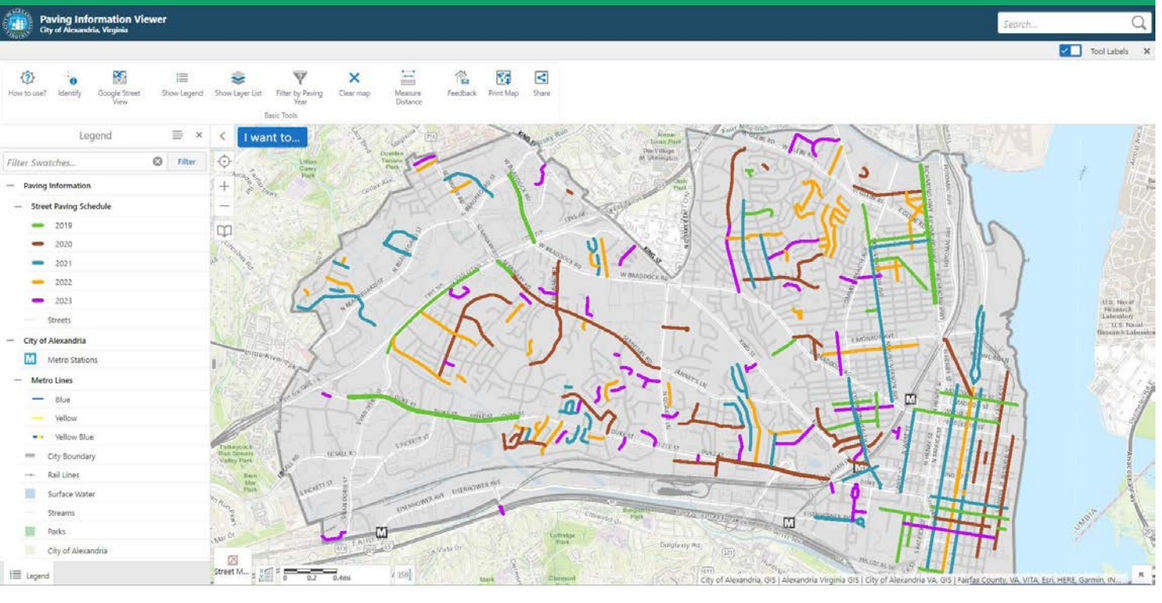


Strategy 6. Maintain a state of good repair for our streets using a proactive, data-driven, and equitable approach

Actions

- Seek to maintain our transportation assets to achieve a state of good repair in a cost-effective and minimally disruptive manner by coordinating utility work, fiber installation, and other street improvements when possible
- Use state and federal required methodologies based on pavement and bridge condition to ensure continued funding and equitable distribution of resources
- When local funding is available for additional service requests, ensure they are distributed evenly throughout the city

State of good repair refers to the maintenance, replacement, and rehabilitation of assets. City staff identify priority locations to **improve safety, accessibility, and mobility** by making changes such as **repaving roads, upgrading curb ramps, adding missing crosswalks, and repairing sidewalks.**



The City of Alexandria's Pavement Schedule Viewer

Addressing the Need

Streets that are not maintained can be safety hazards, barriers for persons with disabilities, or cause more long-standing damage. It is important to avoid skewing repairs to just where there are requests, but incorporating where data shows it is required. Continuous repair and rehabilitation of city streets and infrastructure will increase safety and accessibility while benefiting the user experience along city streets.

The City of Alexandria's **Street Maintenance and Repair program** aims to repair roads, sidewalks, curbs and gutters, and pavement areas in the public right-of-way. The City, with financial support from the Virginia Department of Transportation State of Good Repair program, manages its pavement by **regularly assessing condition, analyzing budget needs, performing routine maintenance,** and **undertaking minor and major paving projects**.

Advancing City Plans and Goals

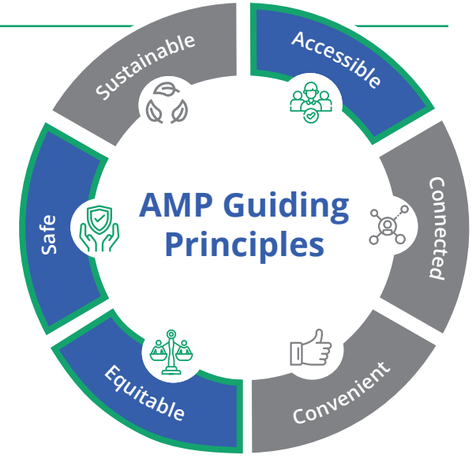
ALL Alexandria

City Strategic Plan

- Multimodal Transportation
- Distinctive and Vibrant Neighborhoods

Vision Zero Action Plan

- Improve Data Collection and Evaluation
- Build Safe Streets for Everyone



Metrics

The strategies and policies in this chapter are intended to move the needle on the following measurable metrics. Additional details on metrics, including applicable targets for future years, can be found in **Appendix II - Monitoring, Reporting, and Key Performance Indicators**.

Metric
Number of fatal and serious crashes
Average Pavement Condition Rating (Pavement Condition Index)
Percent of Transportation Management Plans evaluated that meet mode split targets

Credit: Evan Michio for City of Alexandria